

**AMENDMENTS TO THE SPECIFICATION**

**Please replace paragraph no. [0038] with the following amended paragraph:**

The ionic compound can be preferably used by optionally selecting and combining from the non-coordinate anions and the cations. As the ionic compound are preferable, for example, triphenylcarbonium tetrakis(pentafluorophenyl)borate, triphenylcarbonium tetrakis(tetrafluorophenyl)borate, N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate, ~~1,1'-dimethylphelocenium~~ 1,1'-dimethylferrocenium tetrakis(pentafluorophenyl)borate and the like. The above ionic compounds may be used alone or in a combination of two or more. As the Lewis acid capable of forming the cationic transition metal compound by reacting with the transition metal compound can be used  $B(C_6F_5)_3$ ,  $Al(C_6F_5)_3$  and the like, which can be combined with the ionic compound.

**Please replace paragraph no. [0056] with the following amended paragraph:**

As seen from Table 1, the cis-1,4 bond content and vinyl bond content of the resulting ~~polymers A-D~~ polymers A-C are within the ranges defined in the invention, respectively. Furthermore, when comparing the polymers B and C obtained in Polymer Production Examples 2 and 3, the molecular weight can be controlled by changing the addition amount of triisobutylaluminum. Moreover, the polymer D obtained in Polymer Production Example 4 is low in the cis-1,4 bond content and high in the vinyl bond content because the metallocene type complex of the gadolinium compound is not used.